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# Aztech Environmental

TECHNOLOGIES

5 McCrea Hill Road • Ballston Spa, New York 12020

Mr. Donald Duthaler, Jr., P.E., CPM  
Vice President of Operations  
Baker Capital, L.P.  
One West Red Oak Lane  
White Plains, NY 10604

March 17, 2017

## **RE: Sub-Slab Depressurization System (SSDS) – 2017 Annual Inspection**

Dear Mr. Duthaler,

Aztech Environmental Technologies, Inc. (Aztech) is pleased to provide a summary of the findings of the annual Sub-Slab Depressurization System (SSDS) inspection. The purpose of this letter is to summarize any notable activity or changes to the three (3) SSDSs as well as provide the findings of the annual SSDS inspection for the year 2017. In addition to any changes or deficiencies identified, recommendations for improvements are provided as necessary.

The three (3) SSDSs installed at 510 Furnace Dock Road (the site) located in Cortlandt Manor, New York have been operational since their installation in December of 2011. Each of the three (3) individual systems is comprised of two (2) sub-slab vapor extraction points. All three (3) systems are equipped with Radonaway HS-2000 fan units. Each system is also equipped with a pressure indicating alarm which illuminates a light in the event that the vacuum inside of the system falls below 0.25 inches of water column. All plumbing was completed using three-inch Schedule 40 PVC pipe and solvent-welded fittings. The three (3) fans were mounted securely to the roof and all piping was installed on a pitch to allow any condensation to flow back into the ground beneath the building's slab.

It is noted that building maintenance staff confirm the system's operation regularly by checking the status of the vacuum indicator alarms which are positioned inside of a centrally located broom closet. In the event of an alarm, Aztech would be contacted and a technician would be deployed to the site to determine the cause.

On January 27<sup>th</sup> 2017, Aztech personnel mobilized to the site to determine the cause of a vacuum alarm. Upon inspection, it was discovered that the Northern Fan was inoperable and causing the ground fault circuit interrupter (GFCI) to trip. The fan was removed during this visit until a

replacement could be sourced. The stack was temporarily installed directly to the piping in order to allow the system to passively vent safely in the absence of an induced vacuum. On February 15<sup>th</sup> 2017, Aztech personnel remobilized to the site to replace the Northern Fan with a new HS-2000 unit. Proper operation was proved and the vacuum alarm was no longer in a fault condition.

During the January and February site visits, the system inspection consisted of checking various components of the systems. Aztech personnel visually inspected all of the exposed piping connections to confirm that the solvent-welded joints had not become loose or disconnected. The support for the piping located on the roof was checked to ensure that there were no depressions in the pipes and that the lengths of piping continue to pitch back to the extraction points beneath the building slab. All three (3) system fans located on the roof were inspected to confirm their operational status as well as the rigidity of the mounting brackets. The electrical conduits were also checked and all system failure alarms were tested to confirm operational status.

Following replacement of the Norther Fan, all systems appear to be operating as intended. There are no recommendations to alter or modify the systems or their maintenance at this time. Attached is the field inspection log.

Please feel free to contact Aztech if you have any questions.

Sincerely,

AZTECH ENVIRONMENTAL TECHNOLOGIES, INC.



Andrew Talbot  
Project Engineer



**Seen here is the Northern Fan with the malfunctioning fan removed. The piping was connected temporarily to allow for venting while a replacement was sourced.**





**Seen here is the Northern Fan after repairs were completed.**



**Seen here is the southern leg of the SSDS. The leg was inspected for proper pitch back to the points for condensation to flow back beneath the slab.**



**System Inspection Field Form  
Soil Vapor Mitigation Systems**

**SVE SYSTEMS INSPECTION FORM**

Post Commissioning, Routine or Non-Routine Inspections (circle one)

Date of Inspection: 1-27-17

Date of Previous Inspection: 5-26-16

Address: Furnace Dock Road Cortlandt Manor, NY Tracking Number: \_\_\_\_\_

**Equipment Documentation**

As Found		Manometer Reading (in. H <sub>2</sub> O)		As Left		Manometer Reading (in. H <sub>2</sub> O)	
SVE System	Fan Model	Prior	Current	SVE System	Fan Model	Prior	Current
1-Northern	HS-5000	-	-	1-Northern	HS-5000	-	-
2-Central	HS-5000	-	-10" H <sub>2</sub> O	2-Central	HS-5000	-	-10" H <sub>2</sub> O
3-Southern	HS-2000	-	-6.6" H <sub>2</sub> O	3-Southern	HS-2000	-	-6.6" H <sub>2</sub> O

**Fan Check**

Are all fans in operation?  
 Is there a differential pressure shown in U-Tube manometer?  
     If yes, provide readings above.  
 Is each fan mounted securely?  
 Are coupling connections secure?  
 Is excessive noise heard when fan is running?  
 Does each fan induce suction when running?  
 Is switch is locked in the ON position?  
 Does smoke enter joints?  
     If yes: Was joint re-sealed?  
 Does smoke enter re-sealed joint?

As Found		As Left	
Yes	No	Yes	No
	X		X
	X	X	
	X	X	
	X		X
X		X	
	NA		NA
	X		X

**Piping Check**

Is glue evident at joints?  
 Are system suction points sealed?  
 Is piping system properly supported?  
 Are valves and manometers installed at proper locations?  
 Is excessive noise heard in piping joints?  
 Were piping modifications and 10% of old joints smoke tested?  
 Does smoke enter joints?  
     If yes: Was joint re-sealed?  
 Does smoke enter re-sealed joint?

X		X	
	NA		NA
X		X	
	NA		NA
	X		X
X		X	
	X		X
	X		X
	X		X

**Slab Check**

Have new floor cracks appeared since the last inspection?  
 Was each identified slab crack, repair, or modification smoke tested?

Does smoke enter?

If yes: Was area re-sealed with approved sealant\*?

Does smoke enter re-sealed area?

### Electrical Check

Are electrical wires and connections secure?

Is each junction box closed?

Are conduit properly supported?

Are switch boxes locked?

Does each fan start when the switch is ON position?

Does each fan stop when the switch is in OFF position?

Are mitigation system labels applied?

Are the correct labels applied in the proper locations?

Have the following items changed since the last visit?

Building Footprint

Ownership

**If any of these items have changed, a redesign may be required.  
Contact the maintenance supervisor for field review.**

### Deviations/Comments

NORTHERN FAN INOPERABLE. DUE TO TRIPPED

GPI. REMOVED FAN.

Performed by: GB + JS

Date: 1-27-17





Does smoke enter?

If yes: Was area re-sealed with approved sealant\*?

Does smoke enter re-sealed area?

### Electrical Check

Are electrical wires and connections secure?

Is each junction box closed?

Are conduit properly supported?

Are switch boxes locked?

Does each fan start when the switch is ON position?

Does each fan stop when the switch is in OFF position?

Are mitigation system labels applied?

Are the correct labels applied in the proper locations?

Have the following items changed since the last visit?

No

Yes

If yes, explain...

Building Footprint

Ownership

**If any of these items have changed, a redesign may be required.  
Contact the maintenance supervisor for field review.**

### Deviations/Comments

Fan replaced & tested. No inspection  
needed.

Performed by: LG Date: 1-27-17